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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/614,531   | 07/07/2003  | James D. Roberts     | TWC-1999            | 9004             |
| 7590   | 12/01/2005  |                      | EXAMINER            |                  |
| Patrick J. Viccaro<br>Allegheny Technologies Incorporated<br>1000 Six PPG Place<br>Pittsburgh, PA 15222-5479 |             |                      | PAHNG, JASON Y      |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 3725                |                  |

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/614,531             | ROBERTS, JAMES D.   |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Jason Y. Pahng         | 3725                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 September 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I, claims 1-11, in the reply filed on September 2, 2005 is acknowledged.

The traversal is on the ground(s) that the amendment did not make changes to the claims that should require Examiner to perform any significant further search or examination. This is not found persuasive because the amendment to Group II does require further consideration and new search. Additionally, applicant did not distinctly and specifically point out the supposed errors in the restriction requirement.

Therefore, the requirement is still deemed proper and is made FINAL.

### ***Specification***

The amendment overcomes the objection to the specification made in the Office action dated January 13, 2005.

### ***Claim Objections***

The amendment overcomes the claim objection made in the Office action dated January 13, 2005.

### ***Claim Rejections - 35 USC § 112***

The amendment overcomes the claim rejections under 35 U.S.C. 112 made in the Office action dated January 13, 2005.

***Claim Rejections - 35 USC § 102***

The amendment overcomes the claim rejections under 35 U.S.C. 102 made in the Office action dated January 13, 2005.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 5, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rousseau (US 6,827,304) in view of Prentice et al. (US 4,678,126)

With regard to claim 1, Rousseau discloses a comminuting apparatus and its process including:

1. a cutting chamber (local region above 30 and comprising 30) comprising a first and second members (30);
2. the interior volume of the cutting chamber comprises at least a portion with a V-shaped cross section (Figure 7);
3. the first member (a portion of 30, Figure 7) and the second member (a portion of 30, Figure 7) forming an angle (42, Figure 7) therebetween;

4. the first and second members (30) include slots (34);
5. a rotatable arbor (50) disposed outside the interior volume of the cutting chamber; and
6. a plurality of toothed blades (54).

Claim 1 also calls for the plurality of teeth to have a positive rake. In a closely related art, Prentice discloses a comminuting apparatus with a plurality of teeth having a positive rake in order to improve cutting efficiency in the direction of rotation. (Figure 1). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Rousseau's plurality of teeth with a positive rake in order to improve cutting efficiency in the direction of rotation, as taught by Prentice.

With regard to claim 2, Rousseau discloses an end (41a) of a first member and an end (41b) of a second member. Rousseau's cutting chamber inherently discloses recesses which accommodate the ends (41a, 41b) of the first and second members.

With regard to claim 4, Rousseau discloses a housing (14, 20) enclosing the cutting chamber and the arbor.

With regard to claim 5, Rousseau discloses a housing (14, 20) which is capable of being supported on a table. It would have been obvious to one skilled in the art of comminuting apparatus at the time the invention was made to provide Rousseau with a nominal milling machine table or a comminuting machine table. Furthermore, it is an obvious ordinary engineering to use any suitable machine to rotate the arbor.

With regard to claim 10, Rousseau discloses a collection hopper (21).

With regard to claim 11, Rousseau discloses slots (34) which provide access to a bottom portion of the cutting chamber.

Claims 3, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rousseau (US 6,827,304) in view of Prentice et al. (US 4,678,126) as applied above, further in view of Anderson (US 2,853,247), Schymura (US 4,221,341), and Petersen (US 4,641,787). Claims 3, 7, and 8 call for routine and conventional features well known in the art. Claims call for an insert feature (claim 3), a coolant channel (claim 7), and an inert gas inlet (claim 8). For example, in a closely related art, Anderson discloses an insert feature (71), Schymura discloses a coolant channel (7), and Petersen discloses an inert gas inlet (column 2, lines 35-37; Figure 1). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide Rousseau with any nominal well known features, including an insert feature for an anvil, a coolant channel to cool a comminuting member, and an inert gas inlet to prevent explosion, as taught by Andersen, Schymura, and Petersen.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rousseau (US 6,827,304) in view of Prentice et al. (US 4,678,126) as applied above, further in view of Cavalieri (US 6,666,395) and Greager (US 361,000). Claims 6 and 9 call for routine and conventional features well known in the art. Claim 6 calls for a cleaning roller for cleaning blades and claim 9 calls for spacers for spacing the blades. For example, in a closely related art, Cavalieri discloses a cleaning roller (column 3, lines 38-41) to clean blades and Greager discloses spacers (page 1, lines 61-66) to space the blades. Therefore, it would have been obvious to one skilled in the art at the

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time the invention was made to provide Rousseau with any nominal well known features, including a cleaning roller in order to clean blades and spacers in order to space blades, as taught by Cavalieri and Greager.

***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. As for the V-shaped cross section, note that Rousseau discloses a V-shaped cross section as discussed above.

It is noted that applicant did not present any arguments specifically directed claims 2-11.

Applicant's arguments regarding claims 12-14 are moot because claims 12-14 are withdrawn.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Y. Pahng whose telephone number is 571 272 4522. The examiner can normally be reached on 9:00 AM - 7:00 PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571 272 4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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